

Scenario 1: Dazed and Confused

Student: I'm feeling very overwhelmed by all of the material in this program. It seems like every time I learn something new, I forget how to do everything else from before that. Right now I can't even seem to figure out how to finish the first project. It's not supposed to be this hard, is it? What do I do?

Response: Sorry to hear that you're feeling very overwhelmed by the material. I as a mentor will try to help you out.

As you have mentioned that you keep forgetting concepts as you move forward in the course. To overcome this issue, Can I have some details? Are you making short notes of the course content? Did you face this issue while working on other projects too?

I encourage you to try a general rule like 5:1 rule. Consider dividing the number of hours that you're invest in 6 parts. Invest 5 parts of it in learning new things and 1 part of that time in revising the concepts i.e, if you are investing 3 hours/day then consider investing 2.5 hours on new stuff and 0.5 hour to revise the content. I hope it will solve the issue. Please let me know, what all rubric points have you implemented? Give some details about which part of the project is creating issues for you.

Scenario 2: Mean Means

Student: I'm not sure how to do this. The question asks for the mean of the following numbers: 4, 8, 15, 16, 23, 42. How do I get the mean? How is that different from the average?

Response: Hi,

I am glad that you asked this question. There is a minor difference in both the things. I will surely guide you but before that consider telling me what all do you understand by *mean* and *average*?

In general, we use mean and average interchangeably. Average is a term which people more often used in an informal manner. Average can also be used to denote median (If mentioned specifically otherwise it's just the same as mean). On the other hand, Mean is used in a formal document like statistical reports & documentation. Both the terms are used for estimating the central tendency of a dataset/values.

Mean is a term which statisticians use and average is a term normal people use.

So, you can compute the average or mean by adding the values and dividing the sum by the number of values. I encourage you to go through these Q&As: -

<https://www.quora.com/What-is-difference-between-the-mean-and-the-average> -

<https://in.answers.yahoo.com/question/index?qid=20070418085900AAw8x4i> -

<https://stats.stackexchange.com/questions/14089/what-is-the-difference-between-mean-value-and-average>

Hope it helps!

Scenario 3: Mindset Reset

You witness the following conversation between two students (Student A and Student B) in a Udacity community space (e.g the forums or Slack). Please assume here that Student A and Student B have similar levels of experience with programming:

Student A: I'm trying to teach my friend how to code, but I'm not sure I'm doing a very good job. I've never really taught before! I think the most difficult thing so far has been not knowing what to do if I don't know the answer to a question my friend asks. Should I take my best guess? Should I look it up with her? How do other people who have taught or mentored handled moments like this?

Student B: If your friend has questions you don't know the answer to, are you sure you should be mentoring them? I've never run into that situation when I've taught because I've been a developer for so long and know so much.

Response: Hi @student1,

I am currently mentoring the students. So, I suppose I am eligible for answering this.

I feel it depends on your confidence level & quality of work that you have done in past in that particular tech-stack. I totally understand your situation if your friend asks a question to which you don't know the answer. If you're not sure, I recommend not to give them an answer just by guessing. First, try to understand the problem they are facing then if you don't know the exact answer but have some idea. You can guide them in the right direction by sharing some Q&As on stackoverflow etc. You can honestly tell them that you need to check some resources/notes to get more clarity. Confirm them that you'll surely get back to them as soon as you can.

I am able to tell this because This is a situation which many among mentors often face. It sometimes become challenging to guide students in realtime but this helps us to revise/learn concepts in a couple of minutes. Mentoring a friend will certainly help you & your friend to get better.

Hi @student2, It's really great that you have never run into this kind of situation. That's my personal opinion and experience. No offence to your opinion. :)

Scenario 4: It's just too much

Student: This is all so frustrating! I don't think I can figure any of this out. I've gone over and over the videos in this course, but I'm just not getting it. Every time I sit down to work on the project, I just can't seem to remember what to do next. I guess I'm just not cut out for engineering.

Response: I totally understand your situation. This looks really frustrating. Although I appreciate your perseverance of watching the videos over and over again to solve the problems. Can you share the project's name on which you are working? As you mentioned that you can't seem to remember things when you try to start working on the project. Have you tried taking notes? It's been noticed that if students work on a challenging problem they learn more. Quizzes in Udacity's courses are designed to give challenges and help students learn better.

Let's collaborate to help you solve the issues. I will guide you to complete the project on your own. Please share the tasks that you have completed and the tasks that are remaining. I encourage you to make some short notes of every chapter.

Everyone starts from zero/scratch. You have improved a lot. Be Positive. :)

Scenario 5: Unsupportive Support

Student: Every time I ask for help at Udacity, mentors just confuse me and won't give me the answers I need. If I can't figure something out, tell me the solution! What is wrong with you people?

Response: Sorry to hear that. Would you mind sharing the issue?

Udacity's goal is to make students like you a learner, who can learn and solve the issue by themselves. In a long run, this will help to tackle challenges. Mentors are supposed to guide students to the right direction. We are not supposed to give you a direct answer to the question.

I know, sometimes it becomes a little overwhelming. Consider sharing the problems on which you need some assistance. I will try not to confuse you. :)

PS: If you want to give feedback to Udacity, consider writing an email to support team: mentorship-support@udacity.com

Scenario 6: Margot's Strawberries

A student reaches out to you for help on the following problem:

Margot loves strawberries and wants to buy as many as she can with the \$8 she has in her pocket. If a pound of strawberries costs \$7 and there are 18 strawberries in a pound, how many strawberries can she buy total? Hint: She can't buy part of a strawberry :)

So that you don't have to solve the problem yourself, we've provided you with the math that would be required to find the number of strawberries Margot can buy.

s = number of strawberries Margot buys c = cost of one strawberry = cost of one pound of strawberries / number of strawberries per pound = $7/18$ total cost = number of strawberries * cost of one strawberry $8 = c * s$ $8 = 7/18 * s$ $s = 144/7 = 20 \frac{4}{7} = 20.57142857...$

=> From this we see that Margot can buy 20 strawberries (we have to round down because she can't spend more than \$8 and can't buy part of a strawberry!).

Below you'll find parts of your conversation with the student who is working on this problem. Your task is to help fill in some of the missing pieces at different stages of the conversation. Please submit your responses to the mentor prompt in each part.

Part 1:

Student: I am just staring at this word problem and have no idea how to start or what to do. I keep reading through it and glazing over and feeling lost. Help?

Mentor prompt #1: I am sorry that it looks a little overwhelming to you. I will guide you solving this problem. Let's try to split it into small steps. First tell me, what all details have been provided in the question?

I just showed some empathy and tried taking the student to safe-zone that I will help by guiding them. Advised him/her to split the problem and discuss it. I asked the given values from him/her to check whether he is able to understand the problem or not.

Part 2:

Student: Okay, so I have s = # strawberries, c = cost per strawberry in dollars, $c = 7/18$, and $8 = c * s$. But now what?

Mentor prompt #2: Awesome! That's correct. You have calculated the cost of 1 strawberry c as $7/18$. What value of 's' will you get if you put the value of c in $8 = c * s$? Can you estimate that? :)

I appreciated his/her efforts. Asked another question to take him closer to the solution.

Part 3:

Student: I have $s = 144/7$. Is that it?

Mentor prompt #3: You are very close to the right answer. Now, we have s i.e, number of strawberries as $144/7$. Can you simplify this ratio by dividing 144 with 7 to get an exact value?

That will be your result. Make sure you read the hint that is given. It says that you can't buy strawberry in parts i.e, a decimal value in results should be ignored. :)

Hope it helps!